

**Friday May 15, 2020  
MEETING is VIRTUAL !**

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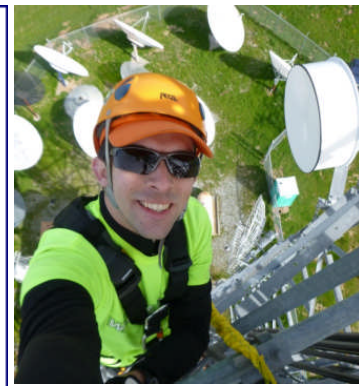
*The 2020 COVID-19 pandemic required the club to cancel all in-person meetings for the duration of the emergency. In response, the Club began meeting electronically, using the **zoom.us** system. Invitations to each publicly available meeting will be sent out via our groups.io email reflector, making it even more important that you join this email group. See page 7 for details on Zoom.*

The meeting presentation will also be shown on the club's digital amateur television repeater on 1244.5 MHz, which may also be viewed on line at: <http://w6cxatv.mdarc.org>



**MAY 15 MEETING IS  
VIRTUAL**

## How to Get Started with



**By Marcel Steiber, AI6MS**

The Automatic Packet Reporting System or APRS is one of the most popular digital modes in amateur radio, but also one of the most confusing ones to use. This talk will start with an introduction to APRS, what it is and how it works, and then cover some of the common use cases for the average amateur. We'll explore different hardware you can purchase, common configurations, what settings to use, and how to get the most out of APRS. After attending this talk, you should be able to go out and start using APRS for vehicle tracking, messaging, or weather monitoring.



**Amal Moulik, N6AML**

If you hear this new member on the air,  
please welcome them to our club.

Club Membership Directories will be  
e-mailed later this month. Hard copies will  
be mailed to those that signed up for them.

— *Roger Hooten, W6UZ*



**When you purchase at Amazon dot com  
smile, a portion of your purchase is  
donated to our club.**

**Go to:**

**<https://smile.amazon.com/ch/23-7072059>**

ALL MEMBERS ARE INVITED TO JOIN  
THE CLUB E-MAIL GROUP.

SHARE INFORMATION WITH THE  
MEMBERSHIP AT:

**<https://groups.io/g/MDARC>**

*(the Yahoo group was abolished)*

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**Mount Diablo Amateur Radio Club W6CX**  
**P.O. Box 23222 Pleasant Hill, CA 94523**  
**(925) 288-1730**

*The Carrier* is a monthly publication of the Mount Diablo Amateur Radio Club (MDARC). It is the policy of the editor to publish all material submitted by the membership provided such material is in good taste, relevant to amateur radio and of interest to MDARC members, and provided space is available.

**President** - Larry Bradley, KK6QPE

**Vice President** - Ed Morales, KJ6KYT

**Secretary** - Larry Loomer, KI6LNB

**Treasurer** - Cathi Walton, K2CJW

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Mike Warren, W6MEW

**Membership Chair** - Roger Hooten, W6UZ  
[mdarcmembership@mdarc.org](mailto:mdarcmembership@mdarc.org)

**PACIFICON 2020**

Chair: Julie Mah, WJ8MAE

Registration: Debbie Deeble, KN6DOM

Treasurer: Jim Siemons, W6LK

Secretary: Cathi Walton, K2CJW

**COMMITTEE CHAIRS AND COORDINATORS**

Annual Auction - Jim Siemons, W6LK

Communications Trailer - Mike Warren, W6MEW

Communications Van MDARC-1 - Jim Tittle, K6SOE

Digital Media - Mike Patterson, N6JGA

Education & Training - John Primus, AF6RJ

Field Day - Larry Loomer, KI6LNB

Good & Welfare - Diana Sage, KA6TZU

Holiday Dinner - Misa Siemons, KJ6BUE

License Testing - Larry Loomer, KI6LNB

Outreach - Dick Wade, WM6G

Public Service - Klaus Berkner, K6KHB

Radio Equipment Lending Library - Dave Piersall, N6ORB

Refreshments - Elizabeth Styles, KG6HLV

Repeater Trustee W6LGW - Dick Brown, KT6X

Repeater Trustee W6CX - Jim Tittle, K6SOE

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Technical Committee - Jim Siemons, W6LK

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# President's Message

May 2020

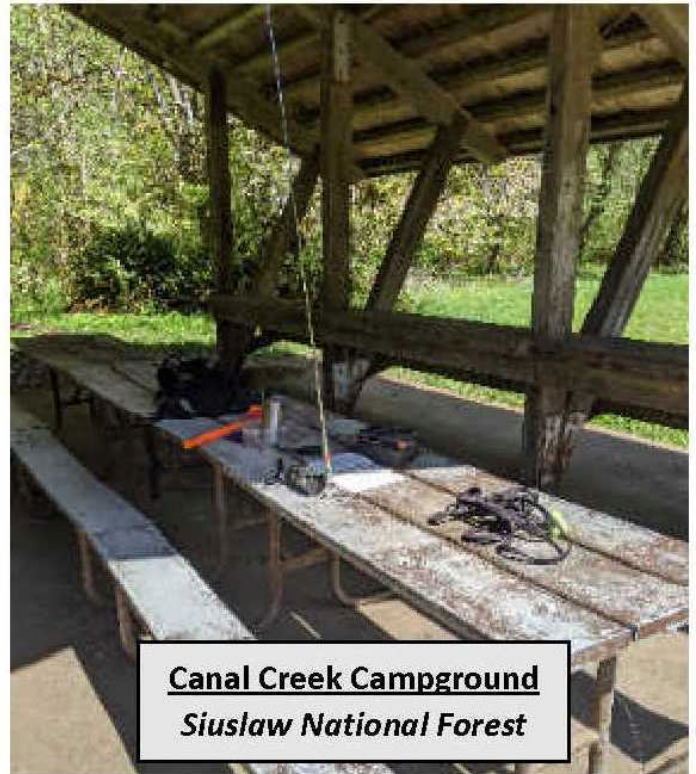
## MDARC Family

As I write this we are experiencing Oregonian “sunshine” along the coast and I wish I could send some of this rain south to California. I understand you have been experiencing warmer-than-usual temperatures and after being here on the coast for nearly three months, I now understand why my dad says that when it gets to be over 65° that it is a too hot.

I sometimes think there is an expectation that the President's Message is supposed to say something profound, provide great kernels of wisdom or never-heard-of radio expertise. Sorry to disappoint you if that is your expectation for I am no genius with words and have only a thimble full of radio expertise.

BUT I am learning! And, isn't this something for which our hobby is all about? Continuous learning.

True confessions: I have never been much of an “HF guy.” Okay, truth be told, I really stay away from the HF bands. That is not to say that I would not like to participate more so when I headed North two+ months ago, I did bring my Elecraft KX2 and AX1 antenna (20, 17, 15M) with the intention of “getting on the air.” Although no fault of the rig, sad to say it has not been a very satisfactory experience. Zero contacts and marginal reception most likely the result of the learning curve and maybe band conditions. But like most of us, I keep plugging away by reading (and rereading) the user manuals and watching YouTube videos to “break down” this learning curve.



**Canal Creek Campground**  
**Siuslaw National Forest**


I go regularly to the Canal Creek Group Campground in the Siuslaw National Forest because it is one of the few areas still open and typically there are no other people. It affords a place for my dog to be off leash to chase balls and dig in the large open field. But it also has a nice sheltered area with tables for enjoying lunch and giving the KX2 a try. I recently purchased an EF-20 20M End Fed Dipole from Vibroplex and the required BNC (male)-to-PL-259 cables from Amazon and my next step will be to set up a sloping dipole.

As I mentioned last month, are you using the email reflector group on [MDARC@groups.io](mailto:MDARC@groups.io) ? If not, I want to encourage you to do so because this is one of the major ways that the Board and others can communicate with all of our members. Check out the link below to see how easy it is to do this.

<http://www.mdarc.org/about-us/communicating-with-you#groups>

\*\*\*\*\*

### James Prescott Joule



Born: December 24, 1818  
Died: October 11, 1889

James Prescott Joule

My object has been, first to discover correct principles and then to suggest their practical development.

Known for:  
First law of thermodynamics  
Disproving caloric theory

AZ QUOTES

*"The greatest motivational act one person can do for another is to listen."* Roy E. Moody

Stay safe,

73

Larry Bradley KK6QPE

05/02/2020





On April 21, 2020, I received a sad call from Barry Blake, a nephew of Drew Hanson, KD6GLY. He told us that Drew passed away on Thursday April 16, 2020 at age 87. Drew was a long-time MDARC member and his nephew wanted to make sure that the club knew about his passing.

Please keep Drew's family and friends in your thoughts and prayers.

73,

*Dick Wade WM6G  
Outreach Coordinator*

Very sad! Drew was a wonderful guy. He always had a positive frame of mind. During the years I was Public Services Coordinator Drew was always there for events - a great radio communicator, a great team player, and a wonderful man. Drew participated as a ham radio operator in many trail rides, bicycle races, runs, walkathons, Alcatraz Swims, and other public service events. He was always a valuable and very competent part of the communications team.

--- *Pete Harris, KE6ZIW*

Drew had a laid back, calming personality that masked his eagerness to be helpful wherever he could. He is missed.

--- *Klaus Berkner, K6KHB*

Terrible news. Drew was a great guy. Very active in RACES and public service events. Always seemed to be in a good mood. I don't think I ever saw him when he was grumpy. He will be missed.

--- *Mike Patterson, N6JGA*

Drew was a wonderful man that was incredibly supportive of everyone in our hobby and beyond. Drew participated in RACES/ACS for decades and held leadership positions from time to time. He was just a guy that was easy to talk with. He will be missed!

--- *Jim Siemons, W6LK ARRL East Bay Section Manager*

We always appreciated Drew's expertise and support for the Concord Mt. Diablo Trail Ride Association horse events.

-- *Peg Gardner, KJ6MXT and Elaine Baker, KJ6MXP*

# AMATEUR RADIO CAN HELP SAVE LIVES!

“Ham Radio Saves Lives!” reads a bumper sticker that was handed out at PACIFICON 2019. With the proliferation of cellular telephones and high-speed internet, one would think these commercial means of communications have effectively supplanted amateur radio during exigent circumstances. If you agree, it is suggested you keep reading...you might help save someone’s life.

On April 15, 2020, W6CX DATV repeater user John Schuler, W6DTV (ex-KG6CZX) was unable to contact former MDARC club member and DATV repeater user Billy Krumlinde, AH6SJ. Billy lived alone in a house in the Captain Cook area on the Big Island of Hawaii. Area cellular telephone service is sparse. Concerned for Billy’s welfare, W6DTV used amateur radio to contact a fellow amateur who lived nearby. This amateur, in turn, was able to contact one of Billy’s neighbors, since W6DTV did not know any. The neighbor reported seeing AH6SJ make his weekly trip to the local store and return to his home earlier in the day. W6DTV remained concerned since he could not reach AH6SJ during their regular HF SSB QSO they conducted on a daily basis. The local amateur spoke with the neighbor, who then entered AH6SJ’s residence. Inside, the neighbor found Billy lying unconscious on his bed. An ambulance was summoned and AH6SJ was transported to a hospital. Diagnosis revealed Billy had suffered a massive stroke. Unfortunately, he passed away several days later on April 20, 2020.

If it was not for amateur radio, AH6SJ would have eventually died inside his home without anyone knowing. Instead, he was able to receive emergency medical care thanks to the vigilance of a friend who was thousands of miles away whose only available means of communication was...amateur radio.



Billy Krumlinde, AH6SJ  
(San Joaquin Yacht Club photo)

*Information from John Schuler, W6DTV*



# Zoom Video Meeting Instructions

Note: Zoom videoconference meeting access IDs and passwords will be distributed only through our [MDARC Groups.io email reflector](#). They will not be posted on the club web site or other publicly available forums, in order to maintain needed security precautions.

## General Information:

All meeting hosts and attendees are expected to review these guidelines prior to any Club meeting and abide by them throughout the meeting.

Zoom has two kinds of events: Meetings and Webinars.

## Meetings:

In Meetings, everyone can see and hear everyone else (unless an individual has been muted or stopped their video). Everyone can also share their screen (unless blocked by the host), for demonstrating something or showing a PowerPoint, as examples.

## Webinars:

In Webinars, only the presenter(s) can be seen and heard. Questions and comments are normally handled by either submitting the question by typing it into the Question pop-up box or the Chat area; or using the “Raised Hand” icon, then asking your question when the host unmutes and acknowledges you.

Webinars are an extra-cost feature in Zoom, so all Club events will be Meetings. This means every participant must be diligent about abiding by these guidelines, to minimize disruptions.

## Per our Bylaws, Article III, Section 5; Electronic Meetings; Item 6:

(<http://www.mdarc.org/about-us/official-documents/bylaws>)

“Electronic Meetings may be conducted at the discretion of the meeting’s chair. Nothing in this Section shall be construed as to require that any meeting of the Membership, Board of Directors or any committee be provided with the facilities for an Electronic Meeting, or that any attendee has the right to attend any meeting by electronic means.”

If you have any questions about using Zoom, please let us know at [info@mdarc.org](mailto:info@mdarc.org) or by calling 925-288-1730.

**Go to [https://zoom.us/download#client\\_4meeting](https://zoom.us/download#client_4meeting)**

For computers (Windows or Apple), download the “Zoom Client for Meetings”.

For phones and tablets, scroll down and download the appropriate “Zoom Mobile App”

\* We recommend using a computer, rather than a phone or tablet, when possible. The screen is larger, the audio is usually better and the controls are easier to use.

Once the app is installed, you can join a test meeting to test your system and your audio.

See <http://www.mdarc.org/about-us/zoom-guidelines/zoom-how-to>

*(continued on following page)*



# Zoom Video Meeting Instructions (continued)

\* Be sure to review the “Attendee Controls in a Meeting” on Zoom’s web site. See our [Zoom How-To page](#) for the link.

\* Please attend via a video connection whenever possible. Although calling into a meeting by audio-only is allowed, it’s strongly discouraged. Attendees are at a substantial disadvantage when they can’t see the material being displayed on-screen. If you don’t have or don’t want to use a camera yourself, it’s possible to attend a video meeting while keeping your video image turned off. That way, you can at least see the material. This may somewhat restrict your ability to participate, however.

\* If you aren’t fully familiar with using Zoom, please see our [Zoom How-To page](#).

\* Once in a meeting, check your name as it appears at the bottom of your image, or in the Participants List. Change it to one appropriate for the meeting, if needed. We suggest adding your call sign, for example. You can also make your name change permanent in your online profile. See our [Zoom How-To page](#) for instructions.

## Video:

- \* Test your camera before the meeting.

Make sure you have the correct camera selected in your PC’s settings and that it’s working.

- \* Use appropriate lighting (no bright windows or lights behind you; light your face well, etc.)

- \* Do not use a camera angle that’s too low (e.g., many laptops on a table or desk).

No one wants to stare up your nostrils the entire time.

- \* Check your own image. Is this how you want to be seen? Is your face clear and well lighted?

- \* Wear appropriate clothes (please no pajamas, bath towels, etc.).

- \* Check the background of your image for anything you may not want others to see (junk in the corner, unmade beds, very personal items, etc.).

- \* Do not use a Zoom virtual background unless your PC can handle it.

Get a green screen if you really want a virtual background.

Turning on Zoom’s virtual background feature without a green screen often messes with your image and distracts from the meeting.

- \* Remember that, in Meetings, everyone can see you at all times.

Temporarily stop your video if you must do anything you don’t want everyone to see.

## Audio:

- \* Test your audio before the meeting.

Make sure you have the correct microphone & speakers selected in your PC settings and that they’re working. Does your microphone sound good? Are you easily understood? If not, consider an external microphone.

- \* Keep your mic muted unless you’re speaking.

- \* Understand that if your audio is very poor, or if there are background noises, side conversations, etc.; the host may mute you.

\* Remember, you must click “Join with internet audio” to get into the meeting. You will be placed in the “Waiting Room” until the host admits you. Your audio, both your speakers and your mic, will be muted until the host admits you. Once in the meeting, your mic will remain muted until unmuted by you or the host. Unfortunately, this is a necessary security measure.



# WILDFIRE PREPAREDNESS

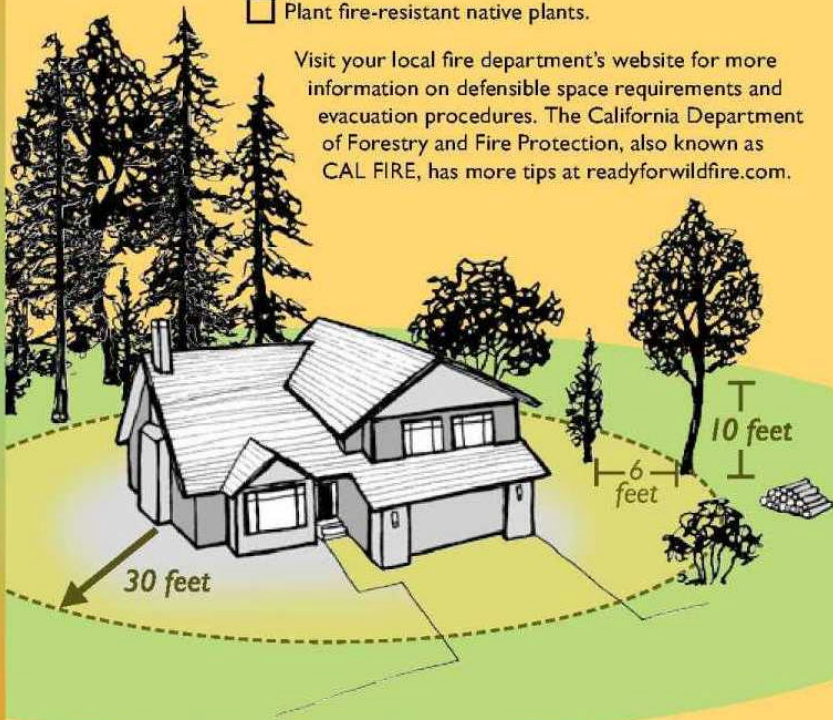
## WEEK MAY 3-9, 2020

### Protect Your Home

USE THIS CHECKLIST TO CREATE DEFENSIBLE SPACE AROUND YOUR PROPERTY.

- ☐ Remove all dead plants, grass, weeds, and overgrown brush.
- ☐ Clear away leaves, needles, and debris from roofs and rain gutters.
- ☐ Keep tree branches 10 feet away from chimney, roof, and other trees.
- ☐ Move firewood and fuel tanks 30 feet away from house.
- ☐ Remove all items from under deck. Do not use this space for storage.
- ☐ Fire harden your home. Install fine wire mesh over roof, eave, and foundation vents.
- ☐ Mow grass to a maximum of 4 inches. Mow before 10 a.m. and never on a hot, windy, or red flag day.
- ☐ Create vertical spacing between grass, shrubs, and trees. Trim trees 10 feet from the ground and 6 feet from other plants.
- ☐ Create horizontal spacing between trees and shrubs.
- ☐ Plant fire-resistant native plants.

Visit your local fire department's website for more information on defensible space requirements and evacuation procedures. The California Department of Forestry and Fire Protection, also known as CAL FIRE, has more tips at [readyforwildfire.com](https://www.readyforwildfire.com).



### Evacuation Tips and Resources

BE PREPARED IN CASE OF EMERGENCY.

Here are tips from CAL FIRE for things to do right away to help you survive a disaster.

#### Create an evacuation plan that includes:

- A designated emergency meeting location outside the fire or hazard area. This is critical to determine who has safely evacuated from the affected area.
- Several different escape routes from your home and community.
- Help for pets and large animals such as horses and other livestock.
- A communication plan that designates an out-of-area friend or relative as a point of contact to act as a single source of communication among family members in case of separation.



#### Be prepared:

- Have fire extinguishers on hand and train your family on how to use them (check expiration dates regularly).
- Ensure that your family knows where your gas, electric, and water main shut-off controls are located and how to safely shut them down in an emergency.
- Assemble an emergency supply kit for each person, as recommended by the American Red Cross.
- Maintain a list of emergency contact numbers posted in your home and in your emergency supply kits.
- Keep an extra emergency supply kit in your car in case you cannot get to your home because of fire or other emergencies.
- Have a portable radio or scanner so you can stay updated on the fire.
- Tell your neighbors about your preparations and urge them to get prepared too.

# MDARC BOARD OF DIRECTORS MEETING

*Virtually via ZOOM video conference April 6, 2020*

Attendees: Larry Bradley KK6QPE, Ed Morales KJ6KYT, Larry Loomer KI6LNB, Cathi Walton K2CJW, Ron Bunch W4FEK, David Piersall N6ORB, Mike Warren W6MEW, John Primus AF6RJ, Mike Patterson N6JGA, Trevor Hall WA6JAU, Roger Hooten W6UZ, Marilyn Warren W6MEW-YL, Cal Vasquez K6VT, Jim Siemons W6LK, Misa Siemons KJ6BUE, Jim Tittle K6SOE, Dick Wade WM6G, Julie Mah WJ8MAH, Tim Barrett K6BIV, Mark Walsh KM6XU.

7:04 PM: The virtual meeting was called to order by President Larry Bradley. Introductions were made. Minutes of the last board meeting were approved. The President sent out the agenda prior to the meeting. The agenda was reviewed and approved.

President: He is sheltering in place in Oregon.

Vice President: There will be a virtual General Membership meeting in April. The speaker contacted for April has not replied.

Secretary: No report.

Treasurer: Cathi Walton K2CJW, reported that the additions to the budget report for March 2020 were routine expenses. The changes to the figures on the budget sheet were discussed. We have \$133K in our combined accounts.

Vehicle: The MDARC 1 van is gassed up and plugged in to shore power to charge the battery. The back battery needs to be replaced. A deep cycle AGM battery was suggested.

Pacificon: The Pacificon website has been launched. Purple is the Pacificon color for this year. Speakers have not been solicited yet this year. There has been no specific discussion with the hotel this year. The hotel will follow the governor's shelter-in-place mandate for this year. On May 1, the registration will begin. Admission price will be discussed at the April 8 meeting.

Education: The Vice President reported that the General class will start on 8/4/20. The Extra class will be postponed until the fall of 2021. License testing for the Technician class saw 12 out of 15 successful candidates for the Technician license.

Digital Media: Nothing to report. The Pacificon website has been launched.

Outreach: There have been calls about Pacificon. There has been traffic on the phone from candidates for license testing. He will pass the names to the License Testing Committee.

Technical: A virtual meeting was held last Saturday, 4/4/20. All systems are on the air. They discussed building out MESH systems. Thirteen hams attended.

Auction: The auction will be a no-go this year. It has been cancelled. A motion was passed: Cancel the MDARC auction for this year. When the shelter-in-place is clear, the auction chairman will take auction gear into his shop.

Field Day: The ARRL is suggesting that hams operate from their home QTH, on different frequencies. The ARRL does not want to change the rules for Field Day. They can operate from their back yard on emergency power. The club should encourage individuals to set up individual stations. More information is in the Section Manager's message on line.

*(continued on following page)*



License Testing: The chairman is collecting email addresses of those who are inquiring about license testing.

Membership: The chairman presented a graph of membership signups for 2018, 2019 and 2020. Retention of members was discussed. The vice president will discuss the results of the membership survey with the membership chairman.

Scholarship: The "East Bay Section" was put into the ARRL scholarship form in place of "Pacificon Division". This will be tabled until the next meeting.

Radio Lending Library: There is no rush on this project. The lending library document will be sent out to the board members with the liability paragraph.

### **Unfinished Business:**

1. Van Policy: This shall be tabled until next month. Having the van at Rodie's is more secure. Working on the van at the chairman's home is more convenient.
2. Membership Polling Questions: Still pending.
3. Radio Lending Library: This has been sent out.
4. Scholarship Document: To be revised as discussed above.
5. Textbook Lending Library: Corrections will be emailed to the Education Chairman.

### **New Business:**

1. Virtual Meetings: The General Membership Meeting on 4/17/20 will be an open format style, with questions from new hams. The June speaker is willing to do a virtual meeting. The Section Manager offered the use of his Section Manager's account for Zoom activities. Someone will do a test run of a virtual membership meeting in advance of the April 17, 2020, meeting.

8:37 The meeting was adjourned.

It was noted that there was no report from either the Emergency Coordinator or the Directors-at-Large.

Respectfully submitted,

Larry Loomer, KI6LNB, MDARC Secretary



*Our club is evaluating a suggestion from Director Mike Warren, W6MEW, to hold this year's ARRL Field Day in the parking lot at the North Concord BART station, consistent with Contra Costa County Health Department guidelines in effect during late June.*

*— Larry Loomer, KI6LNB, Field Day Chair*

# MDARC GENERAL MEMBERSHIP MEETING

*Virtual Meeting held on Zoom April 17, 2020*

7:04: The meeting was called to order by the President who was out of town in Oregon. There were no revisions to the meeting minutes from the previous meeting. The members at the meeting were introduced by the call signs on their video pictures. There were 41 attendees.

The Vice President reported that Marcel Stieber, KI6MS, will be speaking, virtually, on APRS at the May meeting.

The Secretary had no report.

The Treasurer's March report showed that there is \$59K+ in the checking account, \$56K+ in the Self-insurance Fund and \$17K+ in the Pacificon Fund.

The Tech. Committee had a virtual meeting on April 4. All systems are working great. Tonight's meeting will be shown concurrently on ATV.

Digital Media: The guidelines for Zoom Meetings were added to the website.

Education: There are no classes at this time. We have a venue for classes on August 4, subject to the modification of the shelter-in-place orders

Emergency Communication: Ron Bunch, W4FEK, announced that all is going fine.

Pacificon: The committee is monitoring the COVID-19 Virus situation. The website is live. Registration will open on May 1.

Membership: Roger Hooten announced that he expects to get 445 members.

Public Service: The Chairman announced that the Oakland Marathon will be moved from April to August 10 (tentative).

Vehicle Committee: The MDARC-1 vehicle is at the chairman's house getting charged. It is ready to roll at a moment's notice.

Trailer: It is ready to go. It is being set up for a MESH network. A router has been added.

Field Day: ARRL has not cancelled Field Day. The ARRL is suggesting that hams can work Field Day stations from their back yards. They can work Class 1E by using an emergency generator.

Science Fair: The MDARC check will be mailed to the recipient of our selected project.

Unfinished Business: None

New Business: It was asked if hams could be used for virus pandemic communications. So far, cell service has handled all of the communications needs.

An open forum discussion continued forward. 8:45: The meeting was adjourned.

Respectfully submitted, Larry Loomer, MDARC Secretary



# HAM RADIO OUTLET

14 STORE BUYING POWER!

**ICOM**



## IC-7600 | All Mode Transceiver

- 100W HF/6m Transceiver, gen cov. receiver • Dual DSP 32 bit • Three roofing filters- 3, 6, 15kHz • 5.8 in WQVGA TFT display • Hi-res real time spectrum scope



## IC-7200 | HF Transceiver

- 160-10M • 100W • Simple & tough with IF DSP • AGC Loop Management • Digital IF Filter • Digital Twin PBT • Digital Noise Reduction • Digital Noise Blanker • USB Port for PC Control



## IC-7100 | All Mode Transceiver

- HF/50/144/430/440 MHz Multi-band, Multi-mode, IF DSP • D-STAR DV Mode (Digital Voice + Data) • Intuitive Touch Screen Interface • Built-in RTTY Functions



## ID-5100A | VHF/UHF Dual Band Digital Transceiver

- Analog FM/D-Star DV Mode • SD Card Slot for Voice & Data Storage • 50W Output on VHF/UHF Bands • Integrated GPS Receiver • AM Airband Dualwatch • FM Analog/DV Repeater List Function

## ID-51A | VHF/UHF Dual Band Transceiver

- 5/2.5/1.0/0.5/0.1W Output • RX: 0.52-1.71, 88-174, 380-479 MHz\*\* • AM/FM/FM-N/WFM/DV • 1304 Alphanumeric Memory Chls • Integrated GPS • D-STAR Repeater Directory • IPX7 Submersible



**KENWOOD**



## TS-590SG | HF/50MHz Transceiver

- Equipped with 500 Hz/2.7 kHz roofing filter as standard • ALC derived from TS-990S eliminating spike issues • Antenna output function (shared with DRV connector) • CW - morse code decoder function



## TM-D710G | 2M/440 Dualband

- V+V/V+U/U+U operation • Built-in GPS • Built-in TNC for APRS & DX-Cluster operation • 50W 2M & UHF • 1,000 memories • Dual receive • Green or amber backlight colors • Latest APRS firmware w/new features • Sky Command II remote functions



## TM-V71A | 2M/440 DualBand

- High RF output (50W) • Multiple Scan • Dual receive on same band (VxV, UxU) • Echolink® memory (auto dialer) • Echolink® Sysop mode for node terminal ops • Invertible front panel • Choice of green/amber for LCD panel • 104 code digital code squelch



## TM-281A | 2 Mtr Mobile

- 65 Watt • 200 Memories • CTCSS/DCS • Mil-Std specs • Hi-quality audio

## TH-F6A | 2M/220/440

- Dual channel receive • .1 - 1300 MHz (cell blocked) RX • FM, AM, SSB • 5W 2M/220/440 TX, FM • 435 Memories • Li-Ion Battery



**YAESU**  
The radio



## FT-991 | HF/50MHz/2M/440 Transceiver

- 160 M-440MHz - SSB/CW/FM/C4FM Digital/AM/RTTY/PSK • 100 W (2M/440: 50 Watts) • 3.5" TFT full-color touch panel operation • High speed spectrum scope • Roofing filters: 3kHz & 15kHz • 32-bit high speed floating point IF DSP



## FTDX1200 | 100W HF + 6M Transceiver

- Triple Conversion Receiver With 32-bit Floating Point DSP • 40 MHz 1st IF with selectable 3 kHz, 6kHz & 15 kHz Roofing Filters • Optional FFT-1 Supports AF-FFT Scope, RTTY/PSK31 Encode/Decode, CW Decode/Auto Zero-In • Full Color 4.3" TFT Display



## FT-450D | A100W HF + 6M Transceiver

- 100W HF/6M • Auto tuner built-in • DSP built-in • 500 memories • DNR, IF Notch, IF Shift



## FTM-400DR | 2M/440 Mobile

- Color display-green, blue, orange, purple, gray • GPS/APRS • Packet 1200/9600 bd ready • Spectrum scope • Bluetooth • MicroSD slot • 500 memory per band

## FT-60R | 2M/440 5W HT

- Wide receiver coverage • AM air band receive • 1000 memory channels w/alpha labels • Huge LCD display • Rugged die-cast, water resistant case • NOAA severe weather alert with alert scan



5 Ways to Shop!

- RETAIL LOCATIONS - Store hours 10:00AM - 5:30PM - Closed Sunday
- PHONE - Toll-free phone hours 9:30AM - 5:30PM
- FAX - All store locations
- ONLINE - [WWW.HAMRADIO.COM](http://WWW.HAMRADIO.COM)
- MAIL - All store locations

ANAHEIM, CA  
(800) 854-6046

OAKLAND, CA  
(877) 892-1745

BURBANK, CA  
(877) 892-1748

SAN DIEGO, CA  
(877) 520-9623

NEW CASTLE, DE  
(800) 644-4476

PORTLAND, OR  
(800) 765-4267

DENVER, CO  
(800) 444-9476

PHOENIX, AZ  
(800) 559-7388

ATLANTA, GA  
(800) 444-7927

WOODBIDGE, VA  
(800) 444-4799

SALEM, NH  
(800) 444-0047

PLANO, TX  
(877) 455-8750

ONLINE STORE  
[WWW.HAMRADIO.COM](http://WWW.HAMRADIO.COM)

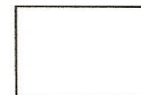
New Store!

Contact HRO for promotion details. Toll-free including Hawaii, Alaska and Canada. Call will be routed to the nearest store. All HRO 800-lines can assist you. If the first line you call is busy, you may call another. AZ, CA, CO, GA, VA residents add sales tax. Prices, specifications and descriptions subject to change without notice.



## The Carrier

Newsletter of the Mt. Diablo Amateur Radio Club  
P.O. Box 23222  
Pleasant Hill, CA 94523  
[www.mdarc.org](http://www.mdarc.org)



## FIRST CLASS

<https://www.facebook.com/mdarc.org>

### W6CX Nets

M-F 5:42 am Morning Muster 147.060+ 224.780- 441.325+

M-F 6:10am Commuter Net 147.060+ 224.780- 441.325+

Monday 8:00 pm SATERN Net 147.060+

Tuesday 7:30 pm Fat City 10 meter USB/CW Net 28.420 MHz

Tuesday 8:00pm Digital Practice Net 147.060+ 224.781-441.325+

Wednesday 7:00 pm SKYWARN Net 147.060+

Thursday 7:30 pm MDARC Club Net 147.060+

Thursday 8:00 pm Amateur Television Net 147.060+

FM 147.060 MHz + / PL 100Hz -

224.780 MHz - / PL 77Hz 441.325 MHz + / PL 100Hz

EchoLink: W6CX-R /133896, IRLP: 3057

<https://www.broadcastify.com/listen/feed/25334>

**D-STAR** 145.000 offset plus 2.5 MHz

<https://w6cx.dstargateway.org/>

**DATV Internet Stream:** <http://w6cxatv.mdarc.org/>

### Contra Costa County Emergency Communications Nets

Every Thursday

<http://www.coco-races.org/meetings/nets/>

6:35 pm HF Countywide 3.893 MHz LSB

6:45 pm West County 145.110-- (82.5 PL)

7:00 pm Central County 145.680 Simplex

7:00 pm East County 146.535 Simplex

7:00 pm South County 147.480 Simplex

7:20 pm Countywide 145.490-- (107.2 PL)

or 147.735-- (107.2 PL)

or 145.410-- (107.2 PL)

### Concord Auxiliary Radio Emergency Service (CARES)

Wednesday 8:00pm 147.405 Simplex

### Digital Amateur Television Repeater

Digital ATV Output: 1244.500

Digital ATV Inputs: 1292.500, 1273.0, 917.0, 430.0

Analog ATV Input: 1270.000 FM (PL 192.8)

## May 2020 and June 2020 Club Calendar

**Friday May 15, 2020**

**MEETING IS VIRTUAL ! Watch on DATV Repeater or via zoom.us**

Monday June 1, 2020

MDARC Board of Directors Meeting - **VIA VIDEO CONFERENCE**

Saturday June 6, 2020

MDARC Technical Committee Meeting - **VIA VIDEO CONFERENCE**

Friday June 19, 2020

MDARC General Meeting - **TO BE DETERMINED**

June 26-28, 2020

ARRL FIELD DAY - **TO BE DETERMINED**